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300 Area Solvent Evaporator Closure Plan, Revision 3B

CHANGE CONTROL RECORD

(3) Revision	(4) Description of Change - Replace, Add, and Delete Pages	Authorized for Release: (5) Cog. Engr.	Authorized for Release: (6) Cog. Mgr. Date
3	(7) Responds to Ecology's Notice of Deficiency: January 2, 1990	S.B. Clifford	F.A. Ruck 03/13/90
3A	Responses (noted with change bars) to Ecology's Notice of Deficiency (11-09-90) and Notice of Deficiency Response Acceptance (02-25-91) page changes: Table of Contents, 1-1, 1-2, 1-22, 1-24, 1-25, 1-26, 1-27, 2-1, 3-2, 3-3, 3-4, 3-5, 3-6, 3-7, 3-8, 3-9, 3-11, 3-13, 4-1, 5-2, 6-4, 7-1, 8-1, 8-2, 8-3, 8-4, 8-5, 8-6, 9-2, 10-1, 10-2, APP-i, APP C-ii, APP C-2, APP E Table of Contents, APP E-1, APP E-2, APP E-5, APP E-6, APP E-8, APP E-9, APP E-10, APP E-11, APP E-16, APP E-18, APP E-20, APP E-21, APP E-23, APP E-24, APP E-25, APP E-28, APP E-29, APP E-30, APP E-35, APP E-39, APP E-40, APP E-41, APP E-42, APP E-43, APP E-44.	S.B. Clifford Revision 3A totally replaces Revision 4 dated 06/26/91 (procedural change). Note: Revision date stays the same (06/26/91).	F.A. Ruck 09/24/92
3B	Responses (noted with change bars) to Ecology's comments dated 09/18/92. Page changes: Cover, Spine, title page, iv, v, 3-2, 3-11, 5-2, 6-1, 10-2, APP C-1, APP E-iii, APP E-iv, APP E-12, APP E-23.	S.B. Clifford	F.A. Ruck 09/25/92

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3.0 DESCRIPTION OF CLOSURE ACTIVITIES

The primary strategy for closure of the 300 ASE is clean closure of the site. In 1985 and 1986, initial closure activities involved removing the waste inventory and dismantling the facility to minimize potential danger to onsite personnel and the environment. The closure activities that remain to be performed include (1) soil and concrete sampling and analysis to evaluate contamination of the closure area, (2) evaluation of data, and (3) closure of the facility.

Clean closure of the site is contingent on verification of an absence of soil and concrete contamination originating from the 300 ASE. This contingency is to be assessed using information obtained from implementation of the Soil and Concrete Sampling and Analysis Plan (Appendix E). In the event that more extensive remediation is required (i.e., clean closure is not possible or practical), the remaining activities necessary for final closure/post-closure monitoring are proposed to be performed in conjunction with the inactive site activities planned for Operable Unit 300-FF-2.

Because the 618-1 Burial Ground completely underlies the 300 ASE site, assessment of any potential impact on groundwater resulting separately from the 618-1 Burial Ground is not possible. Given these special conditions, groundwater sampling and analysis are not included in the closure activities associated with the 300 ASE. Clean closure of the facility will be based on information derived from implementing the soil and concrete sampling and analysis plan.

3.1 MAXIMUM EXTENT OF OPERATION

The active life of the 300 ASE facility ceased in November 1985 (Table 3-1). The maximum extent of operation is known to have been exceeded only once at the time of the steam heating coil failure that filled the evaporator with water to overflowing.

3.2 REMOVAL AND MANAGEMENT OF HAZARDOUS WASTES

Information concerning the removal and management of hazardous waste is presented in the following sections.

3.2.1 Estimate of Maximum Inventory of Hazardous Wastes

The 300 ASE received solvents used in the 300 Area reactor fuel manufacturing facilities. The maximum annual inventory of hazardous wastes treated at any time during the life of the facility was approximately 600 gallons. Thus, the maximum volume of chemicals treated in the 300 ASE over the 10-year operating term has been estimated to be 6,000 gallons. Perchloroethylene constituted approximately 71 percent (4,260 gallons), 11 percent was trichloroethylene (660 gallons) and 1,1,1-trichloroethane was approximately 9 percent (540 gallons). The remaining 9 percent (540 gallons) was composed of primarily ethyl acetate/bromine, with some paint shop solvents (see Table 1-1).

Table 3-1. Chronology of 300 Area Solvent Evaporator Closure Activities.

Date	Activity
January 1985	Water solvent sampled
March 1985	Analysis performed on waste solvent
August 1985	Deliveries to 300 ASE suspended; last solvents added
September 1985	Part A application submitted to Ecology and EPA
November 1985	Heating process terminated; final shutdown; solidification of final waste inventory initiated; demolition initiated Interim Status Closure Plan (Rev. 0) submitted to Ecology and EPA
February 1986	Disposal of solidified waste inventory at the 200 West Area Low-Level Burial Ground
March 1986	Demolition of 300 ASE facility completed
July 1986	Disposal of burial box containing the dismantled 300 ASE and equipment in 200 West Area Low-Level Burial Ground
April 1988	Submittal of revised 300 ASE Interim Status Closure Plan (Rev. 1) to Ecology
September 1988	Notice of Deficiency on Closure Plan (Rev. 1) received from Ecology
February 1989	Submittal of revised 300 ASE Closure Plan (Rev. 2) to Ecology
April 1989	Notice of Deficiency on Closure Plan (Rev. 2) received from Ecology
January 1990	Ecology accepts the NOD responses and authorizes submittal of the 300 ASE Closure Plan (Rev. 3) by March 30, 1990
March 1990	Submittal of revised 300 ASE Closure Plan (Rev. 3) to Ecology
November 1990	Notice of Deficiency on Closure Plan (Rev. 3) received from Ecology
February 1991	Ecology accepts NOD responses and authorizes submittal of page changes (Rev. 3A) for 300 ASE Closure Plan
June 1991	Page changes issued to document holders
June 1992	Ecology requested additional page changes
September 1992	Page changes (Rev. 3B) issued to document holders.

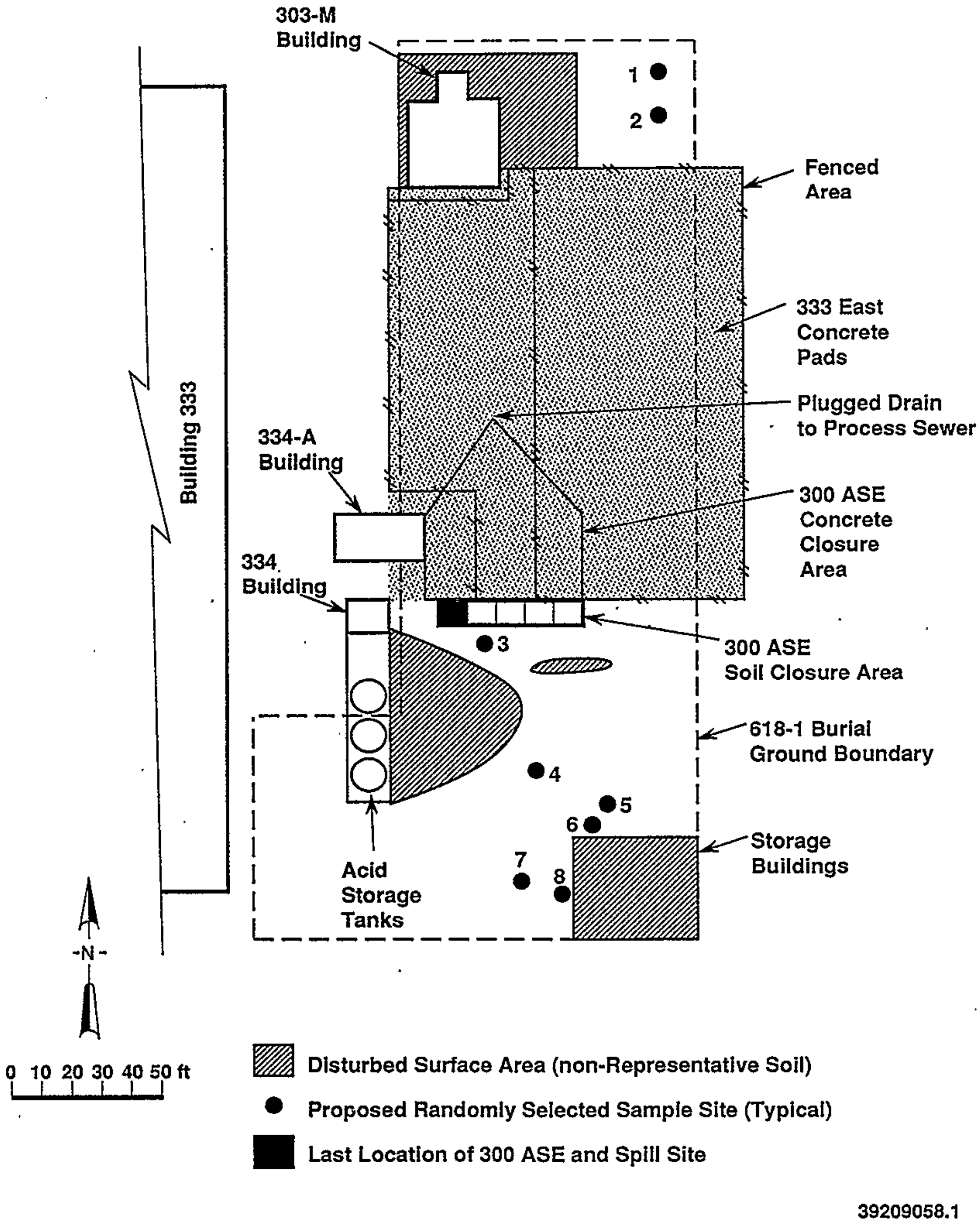

Figure 3-3. Baseline Soil Sampling Sites for the 300 Area Solvent Evaporator.

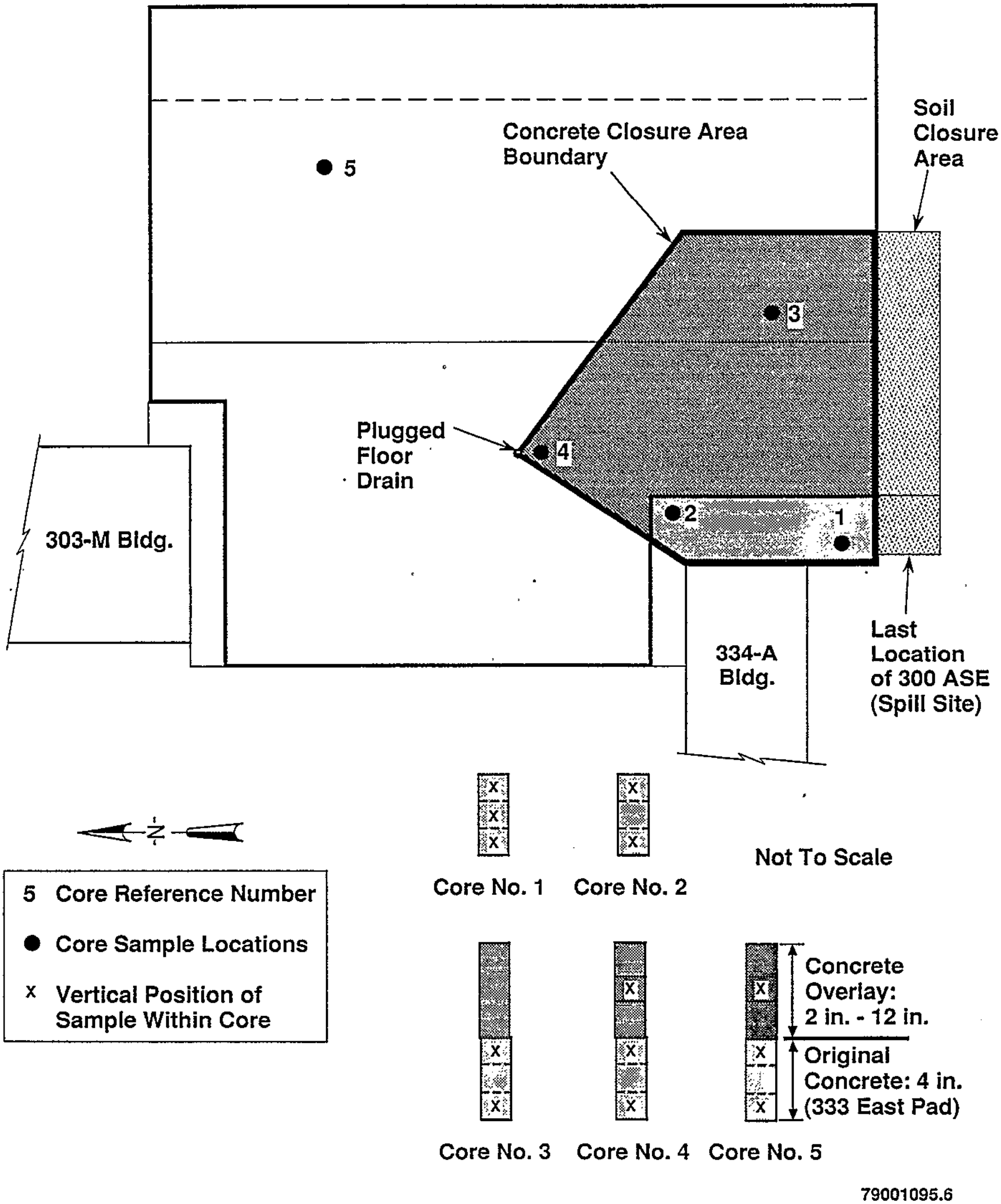

Figure 3-4. Concrete Sampling Sites for the 300 Area Solvent Evaporator.

5.0 POST-CLOSURE

5.1 NOTICE IN DEED

If clean closure cannot be accomplished, within 60 days of the certification of closure of the 300 ASE site, the DOE-RL will, in accordance with the state regulations, sign, notarize, and file for recording, the following notice. The notice will be sent to the Auditor of Benton County, P.O. Box 470, Prosser, Washington, with instructions to record this notice in the General Index. This document is normally reviewed in property title searches.

TO WHOM IT MAY CONCERN

The U.S. Department of Energy-Richland Operations Office, an operations office of the U.S. Department of Energy, which is a department of the United States Government, the undersigned, whose local address is the Federal Building, 825 Jadwin Avenue, Richland, Washington, hereby gives the following notice as required by 40 CFR 265.119(b) and WAC 173-303-610(10) whichever is applicable:

(a) The United States of America is, and since April 1943, has been in possession in fee simple of the following described lands (legal description of the 300 ASE closure site).

(b) The U.S. Department of Energy-Richland Operations Office, by operation of the 300 Area Solvent Evaporator, has disposed of hazardous and/or dangerous waste under the terms of regulations promulgated by the U.S. Environmental Protection Agency and Washington State Department of Ecology (whichever is applicable) at the above described land.

(c) The future use of the above-described land is restricted under the terms of 40 CFR 264.117(c) and WAC 173-303-610(7)(d) (whichever is applicable).

(d) Any and all future purchasers of the this land should inform themselves of the requirements of the regulations and ascertain the amount and nature of wastes disposed on the above-described property.

(e) The U.S. Department of Energy-Richland Operations Office has filed a survey plat with the Benton County Planning Department and with the U.S. Environmental Protection Agency Region 10 and Washington State Department of Ecology (whichever are applicable) showing the location and dimensions of the 300 Area Solvent Evaporator site and a record of the type, location, and quantity of waste treated.

5.2 CLOSURE COST ESTIMATE

It is DOE-RL's understanding that federal facilities are not required to comply with WAC 173-303-620. However, projections of anticipated closure costs will be provided annually during the closure activities (starting October 1993).

6.0 PROCEDURES TO PREVENT HAZARDS

The procedures applicable to normal Hanford Site activities (including soil and concrete sampling) are described in the following sections.

6.1 SECURITY

Security is addressed in Chapter 1.0, Section 1.2.

6.2 INSPECTION SCHEDULE

Clean closure is anticipated; therefore, this section is not applicable to the 300 ASE. The alternative, if implemented, is to follow the CERCLA process (300-FF-2 Operable Unit) and the emergency remedial action may be an epoxy-asphalt cover with suitable engineered thickness to preclude any RCRA monitoring/inspection requirements.

6.3 DOCUMENTATION OF PREPAREDNESS AND PREVENTION REQUIREMENTS OR WAIVER

The Hanford Site normal emergency facilities/equipment are adequate for all emergencies, if needed. Figure 1-2 shows the close proximity of medical and fire station facilities. Section 6.5 addresses the relevant scenarios associated with closure activities and includes documentation requirements.

6.4 PREVENTIVE PROCEDURES, STRUCTURES, AND EQUIPMENT

No closure activities are anticipated beyond the collection of soil and concrete samples; therefore, this section is not applicable to the 300 ASE.

6.5 SPILLS AND DISCHARGES TO THE ENVIRONMENT

Because the facility no longer exists, there is no possibility of spills and discharges to the environment resulting from the 300 ASE. The only other types of impact to the environment from the 300 ASE are those associated with soil and concrete sampling activities, and there are no dangerous materials used in this effort. The following information is provided as an additional safety measure to cover unanticipated contingencies. The field team leader will be the responsible individual for modifying and implementing any additional safety measures.

6.5.1 Notifications

Three types of notifications are described in this section: (1) emergency signals, (2) notification of emergency response organizations, and (3) notification of authorities.

6.5.1.1 Emergency Signals. Several communication systems exist on the Hanford Site to notify personnel of emergency incidents and to disseminate information about events affecting Hanford Site activities. Three of these systems are as follows:

- Priority message system (management bulletin)--a network of telefax machines used to transmit important messages rapidly across the Hanford Site
- The DOE-RL radio system--links the Hanford Patrol, Hanford Fire Department, safety, and engineering representatives at a network of base stations, mobile units, and portable radios
- Hanford Site emergency signals--emergency signals used to alert personnel in an emergency event are listed in Table 6-1.

Table 6-1. Hanford Site Emergency Signals.

Signal	Incident/Alarm Type	Response
Gong or bell	Fire	Nonprocess personnel will evacuate Process personnel will wait for directions
Steady siren	Evacuation	Get car keys if time permits and vacate building; report to staging area[a]
Wailing siren	Take cover	Seek shelter indoors Shut windows and doors Await instructions
Ringing bell	CAM[b] alarm	Evacuate immediate area Call for help Remain in one location
CRASH alarm	Emergency communications	Pick up phone and listen Relay message to building emergency director

[a] Area where facility personnel gather following notification of incident.
[b] Continuous air monitor.

10.0 REFERENCES

American Antiquities Preservation Act, 1906, 16 USC 432.

American Chemical Society, 1983, *Principles of Environmental Analysis, Analytical Chemistry*, Vol. 55, pp. 2210-2218.y

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Archaeological Resources Protection Act of 1979, Public Law 96-95, 93 Stat. 721, 16 USC 470aa.

Clean Air Act of 1977, as amended, Public Law 95-95, 91 Stat. 685, 42 USC 7401.

Clean Water Act of 1977, as amended, Public Law 95-217, 92 Stat. 1566, 33 USC 1251.

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Federal Insecticide, Fungicide, and Rodenticide Act, 1975, as amended, Public Law 92-516, 86 Stat. 973, 7 USC 136 et seq.

Fish and Wildlife Coordination Act of 1934, as amended, c. 55 Sl, 8 Stat. 401, 16 USC 661.

Historic Sites, Buildings and Antiquities Act of 1935, 49 Stat. 666, 16 USC 461-467.

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OSHA, 1989, *Hazardous Waste Operations and Emergency Response*, Title 29 Code of Federal Regulations, Part 1910.120, as amended, *Federal Register*, 54 FR 12792, March 28, 1989, Occupational Safety and Heath Administration, Washington, DC.

RTECS, 1987, *Registry of Toxic Effects of Chemical Substances 1985-86 Edition Users Guide*, as amended, U.S. Department of Health and Human Services, National Institute for Occupational Safety and Health, Washington, D.C.

Resource Conservation and Recovery Act of 1976, as amended, Public Law 94-580, 90 Stat. 2795, 42 USC 6901 et seq.

Sax, N.I. and Lewis, R.J., 1987, *Hawley's Condensed Chemical Dictionary*, 11th ed., Van Nostrand Reinhold Company, New York, p. 806.

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WHC, 1989, *Environmental Investigation and Site Characterization Manual* (EII), WHC-CM-7-7, Westinghouse Hanford Company, Richland, Washington.

Wild and Scenic Rivers Act of 1968, as amended, Public Law 90-542, 82 Stat. 906, 16 USC 1271.

APPENDIX C

COMPOSITION AND DESIGNATION OF SOLVENT EVAPORATOR WASTE

Table C-1. Toxicity Determination.

Component	Concentration(%)	WT%	Category[a]	EC[b]
Perchloroethylene	71	7.10 E+01	C	7.1 E-02
1,1,1-trichloroethane	9	9.00 E+00	C	9.0 E-03
Trichloroethylene	11	1.10 E+01	C	1.1 E-02
Combination mixture[c]	9	9.00 E+00	C	9.0 E-03
Ethyl acetate			D	
Bromine			None	
Used Oil			None	
Methyl ethyl ketone			D	
Methylene chloride			C	
Petroleum naphtha			None	
Aluminum	10ppm	1.0 E-03	None	---
Boron	5ppm	5.0 E-04	None	---
Calcium	52ppm	5.2 E-03	None	---
Iron	78ppm	7.8 E-03	None	---
Lithium	4ppm	4.0 E-04	None	---
Beryllium	<0.11ppm[d]	1.1 E-05	A	1.1 E-06
Phosphorus	25ppm	2.5 E-03	X	2.5 E-03
Silicon	28ppm	2.8 E-03	None	---
Sodium	46ppm	4.6 E-03	A	4.6 E-04
Zirconium	2ppm	2.0 E-04	None	---
			Total EC	1.03 E-1

[a] WAC 173-303-084(5) and 40 CFR 302.4.

[b] EC=equivalent concentration; from *Registry of Toxic Effects of Chemical Substances 1985-86 Edition Users Guide* (RTECS 1987).

[c] The combination mixture will be classified as Toxic C for designating purposes.

[d] Calculated concentration.

Note: Concentration of uranium was below detection limits (less than 10 micrograms per milliliter). If the EC is greater than 1 percent, then the solution is regulated for toxicity as WT01 (extremely hazardous waste according to WAC 173-303).

Table C-2. Carcinogenesis Determination.

Component	Concentration (WT%)
Perchloroethylene	71
Trichloroethylene	11
Beryllium	1.1E-05
SUM OF WT% OF CARCINOGENS	>82

Weight percent (wt%) of total carcinogens must be greater than or equal to 1 percent in order to be regulated as WC01 (extremely hazardous waste).

Table C-3. Persistence Determination.

Component	Concentration (WT%)
Perchloroethylene	71
1,1,1-trichloroethane	9
Trichloroethylene	11
SUM OF WT% OF CARCINOGENS	>90

Weight percent (wt%) of total halogenated hydrocarbons must be greater than or equal to 1 percent in order to be regulated as WP01 (extremely hazardous waste).

Table C-4. Listed Waste Designations*.

Perchloroethylene	F001, WT01, WC01, WP01, D001
1,1,1-trichloroethane	F002, WP01
Trichloroethylene	F001, WC01, WP01
Ethyl acetate	F003
Methyl ethyl ketone	F005
Methylene chloride	F001

* Based on WAC 173-303 dangerous waste listings.

CONTENTS

CONTENTS (cont)

FIGURES

TABLES

Table E-3. Performance Standards for Organic Constituents. (sheet 2 of 2)

Example (2): Based on an EPA (1989b) residential model for adult exposure due to soil ingestion. Toxicity protection levels based on adult exposure using the following parameters: 70 kg body weight, ingestion of 100 mg soil/day daily, 365 days per year for a lifetime (75 years) and 100 percent efficiency for metabolism of ingested soil. Carcinogenicity is based on the same parameters for cancer risk ranging from 10^{-4} (for suspected carcinogens) to 10^{-6} (for known carcinogens) averaged over a lifetime (75 years).

Example (3): Based on Ecology's (1991) industrial model for adult exposure due to soil ingestion: Toxicity protection levels based on adult exposure using the following parameters: 70 kg body weight, ingestion of 50 mg soil/day daily, on the average of 40 percent of each year over a lifetime (75 years), and 100 percent efficiency for metabolism of ingested soil. Carcinogenicity is based on the same parameters for an acceptable cancer risk factor of 10^{-5}, and a 20 year duration of exposure.

[a] Carcinogenicity data for lifetime exposures are not available at this time. This substance has been evaluated by the EPA for evidence of human carcinogenicity potential. This does not imply that this chemical is necessarily a carcinogen. The evaluation is under review by an inter-office agency work group. A risk assessment summary will be included on IRIS when the review has been completed (EPA 1991).

[b] Reference dose for chronic oral exposure is under review by EPA (pending). Carcinogen assessment summary has been withdrawn following further review. A new carcinogen summary is in preparation by the CRAVE work group (EPA 1991).

[c] Reported human data and animal studies for this substance have not demonstrated carcinogenicity (EPA 1991).

[d] Class D carcinogen; not classifiable as to human carcinogenicity (EPA 1991).

[e] This chemical has not been evaluated by EPA for evidence of human carcinogenic potential (EPA 1991).

[f] This substance is not included in the IRIS (EPA 1991) or HEAST (EPA 1989b) references. The only hazard identified for petroleum naptha is flammability at concentrations between 1-6 percent in air (Sax and Lewis 1987).

[g] There is presently no reference dose for chronic oral exposure (RfD). A risk assessment group for this substance/agent is under review by an EPA work group. This substance is a Class C carcinogen (i.e., possible human carcinogen). This classification is based on no human data and limited evidence of carcinogenicity in two animal species (rats and mice). No quantitative estimate of carcinogenic risk from oral exposure (EPA 1991).

[h] There is no information on this substance in IRIS (EPA 1991). The information listed here is from the Health Effects Assessment Summary Tables (EPA 1989b).

E-2 CONTAMINATION SCENARIOS AND ASSESSMENTS

The 300 ASE soil and concrete sampling and analysis strategy has been based on the operational history, known spill events, and assessments of the known spill and possible barrel leak events. Contamination assessments are especially useful as a basis for development and justification of the soil and concrete sampling and analysis strategy. The primary objective of these assessments has been the determination of how much waste material from any 300 ASE facility discharge, particularly the volatile/semi-volatile constituents, would be expected to remain in the soil and concrete. Both soil and concrete worst case spill and leak scenarios were developed and analyzed to determine the time required for complete evaporation of the volatile constituents.

E-2.1 ASSESSMENT METHODS

The contamination assessment process for the 300 ASE involved the following steps:

- Development of spill/leak scenarios
- Identification and summary of pertinent conditions and physical properties necessary as model input parameters (e.g., temperature, vapor pressures, discharge rates, etc.)
- Calculation of evaporation rates as a function of temperature, relative humidity, etc.
- Determination of the time required for evaporation of the total spill from the concrete surface (concrete models only); maximum surface evaporation time set equal to residence time on the concrete
- Determination of maximum penetration depth of water/solvent or solvent using calculated residence times and physical characteristics of the medium
- Determination of maximum time required for complete evaporation of water/solvent or solvent from a maximum thickness of affected concrete (concrete models only).

All models incorporated the use of information such as weather conditions, assumptions concerning discharge volumes and rates, and the physical properties of the media as input parameters into the calculations. The pertinent data and representative ranges of temperature dependent parameter values are tabulated in Table E-4. Standard calculation methods for evaporation processes (e.g., Welty et al. 1969, p. 487) were used. The relative rates of evaporation rates for <u>Water</u>, <u>PCE</u>, and <u>TCA</u> at various temperatures were calculated. The values for water are consistent with annual Hanford Site evaporation rates over the past 10 years (WHC 1990). Weather conditions over the spill period were obtained from Pacific Northwest Laboratory reports for the Hanford Meteorology Station. Values for the physical and chemical properties of water and the solvents were obtained from and would no longer be present in the exposed or covered part of the original 333 East Concrete Pad.

E-3 SOIL SAMPLING

A total of 15 soil samples will be collected for the 300 ASE and submitted for analysis. Figure E-5 shows the soil closure area sampling sites. Following is a summary of the soil sampling effort.

- Six soil samples from the soil closure area.
- One duplicate soil sample.
- Eight baseline soil samples.

All of the soil samples will be taken from the material that was used to construct the 618-1 Burial Ground cover. The physical appearance of the 618-1 Burial Ground surface soil indicates that the surface has been subjected to many uses. Color differences and undulations within the soil's surface are examples of prior utilization that has rendered parts of the 618-1 Burial Ground cover unsuitable for baseline sampling. These locations are identified as disturbed surface areas in Figure E-6. The soil sampling depth, sample locations, and discretion for field changes should minimize these factors. Sample locations and depths are described in the following sections. All soil samples will be collected in accordance with EII 5.2 and analyzed in accordance with standard SW-846 procedures (EPA 1986). Field and laboratory QA/QC requirements, specific methods and protocols are identified in the 300 ASE quality assurance project plan.

E-3.1 SOIL SAMPLING LOCATIONS

Six verification soil samples will be taken in the 300 ASE closure area. The soil closure area has been delineated by the locations of the evaporator during its operation. Throughout its use, the evaporator was confined to the southern edge of the 333 East Concrete Pad and the immediately adjacent 50 feet by 10 feet strip of soil (see Figure E-3). The strategy of soil sampling within this 50 feet by 10 feet area is based on the following.

- The evaporator was located on the 10 by 10 feet block of soil designated as Block A in Figure E-5 at the time of the known spill (March 1985).

- The possibility exists for other unknown leaks or spills to have occurred on the soil closure area.

- The overflow from the evaporator would likely have spilled from the north-facing (cut-out) side as shown in Figure E-4.

9 3 1 2 7 8 1 1 2 7

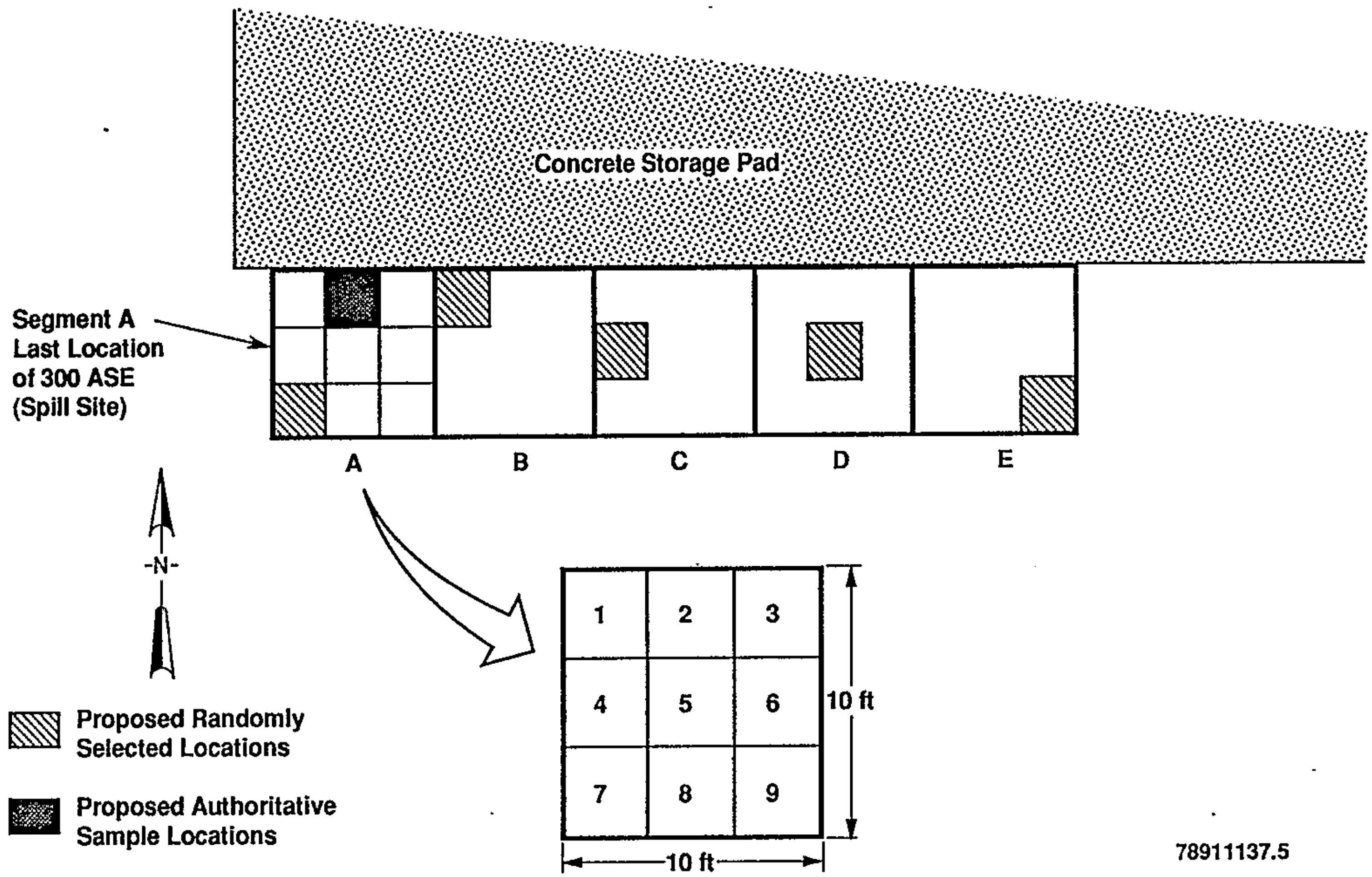

Figure E-5. Soil Closure Area and Sampling Sites.

9 3 1 2 7 8 1 1 2 9

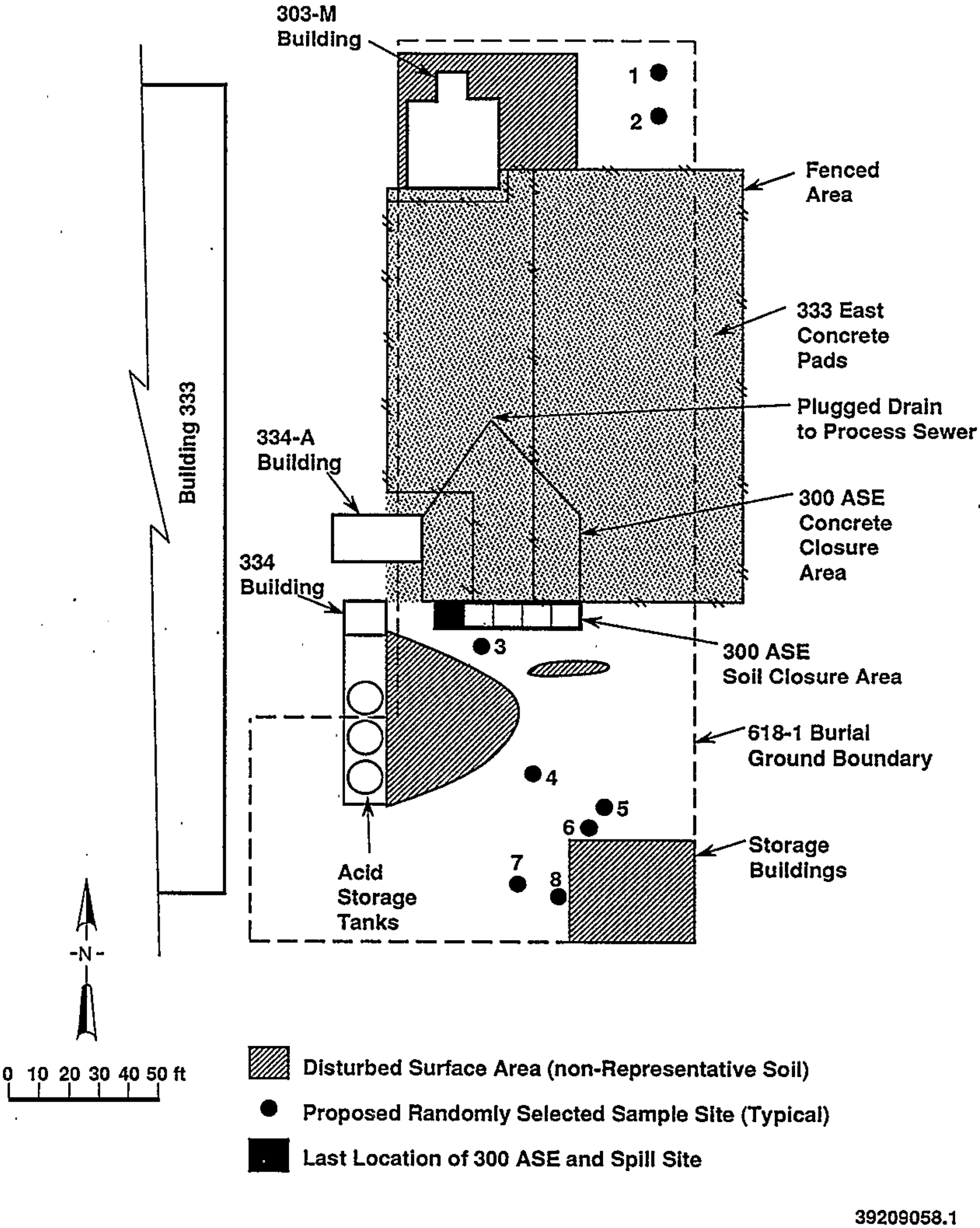

Figure E-6. Baseline Soil Sampling Sites. (78911137.3)

The 10 by 50 feet soil closure area (Figure E-5) was divided into five blocks: Block A, B, C, D, and E. Each block was subdivided into nine equal parts (3.33 feet on a side). A sample location (grid block) was randomly chosen using a random number table (Cochran and Cox 1957) for each of the five blocks; i.e., five representative samples from the 45 possible locations. Additionally, an authoritative sample from Block A was also selected from the site of the steam condensate overflow. One of the samples will be field split to make a duplicate sample.

Utilization of a simple random sampling scheme for these samples ensures that the data obtained will be representative of the population from which the samples were taken and will meet or exceed the minimum requirements of EPA SW-846 guidelines. Following soil sampling, the sampling locations will be hand graded to blend with the surrounding topography and will not become preferential pathways for precipitation infiltration.

E-3.2 SOIL SAMPLING DEPTH

The baseline and closure area soil samples will be restricted to the upper 12 inches of the 618-1 Burial Ground soil cover. This soil cover is nominally 4 feet thick. Based on factors such as compaction over time and the potentially undulating upper surface of the 618-1 Burial Ground, it must be assumed that the actual thickness of the soil cover could vary from 4 feet to less than 2 feet in any given location. The sampling strategy is to collect shallow soil samples to avoid penetration of the 618-1 Burial Ground for health and safety reasons, but deep enough to preclude surface contaminations. Given these conditions, only the upper 6- to 12-inch zone of the soil can be safely sampled. The entire sample from each sample location will be submitted to the laboratory for analysis.

Soil samples from the sampling zone of the closure area are expected to be suitable for evaluating contamination of the soil resulting from the 300 ASE operation for the following reasons:

- Inorganic metals and radionuclides would remain in the upper 12 inches of the soil based on the demonstrated ability of the soil to absorb these constituents (e.g., Routson et al. 1979)
- Soil moisture profiles (Last et al. 1976; Jones 1978) indicate that soil moisture less than 12 to 20 feet deep normally evaporates and the zone becomes devoid of moisture (and any other liquids with vapor pressures greater than water) during the summer months. Thus, the upper 12 inches of soil would be appropriate to verify the absence of volatile organic solvents from the upper 4 feet of the soil above the 618-1 Burial Ground.

E-3.3 SOIL BASELINE SAMPLING LOCATIONS

Eight randomly selected locations within the 618-1 Burial Ground boundary have been selected for baseline sampling (Figure E-6). The selection of the number of baseline samples was based on professional judgment